

HEMORRHOID
TREATMENT
BY
GALVANISM

Ogden



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by

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Introduction

THERE are many thousands of rectal sufferers, who, for fear of the old method of treatment for diseases of the rectum, will continue to suffer unless relief is given them in some other manner than by the clamp, cautery, or ligature, therefor;

The following pages of this book have been made plain and simple, devoid of all technicalities which might confuse the physician who desires to obtain a more comprehensive knowledge of this special line of work.

This book is the result of twenty years' study of the practice of Proctology, along the more conservative lines, with the barbaric and painful methods of the past eliminated. We have seen the patient in the hospital suffering the most severe and excruciating pains from hemorrhoidal operations. The methods given in this book will prove to you conclusively how unnecessary it was, and is. The dreaded general anesthetic is also eliminated in the dissolvent method.

What is said here of the treatment of Hemorrhoids is true to a great extent in the treatment of all other diseases of the rectum.

There have been many attempts made to find some injection method which would dissolve or absorb the tumor, but all of them have given unsatisfactory results to the physician and patient. Physicians, though many are suffering with Hemorrhoids, will be the last to submit to an operation for them, though often advising patients to do so.

The textbooks on proctology are limited as compared to those written on the treatment and surgical methods employed by other specialists of the medical profession. When we consider that eighty percent of all people have some form of rectal trouble, it seems as though there should be greater advancement in this field of work.

We want to make one word distinct and emphatic; that word is DIAGNOSIS. There is no class of diseases where it is more essential that we should know just what the trouble is, than in the treatment of rectal diseases. The patient always has his own diagnosis made when he consults you. It is always "Piles." Too often the physician in general practice will take the patient's word, without an examination, and give him some salve or medicine, not knowing what the trouble is. The proctologist does not usually get rectal cases until others have failed to give the necessary relief.

We are surprised that more attention was not given to the method described by Dr. Baker in a paper which he read before the Milwaukee Medical Society in 1892: "Treatment of Hemor-

rhoids by Electricity." On account of faults in its mode of application it was not used. We do not hear again of the treatment until a Chicago physician in 1899 made an attempt to use the method but failed. Three or four years later it was used with great success, but the methods were never published or given to the profession. Since that time it has been used in the treatment of many thousands of patients with statements from them that the method was painless. From that time until very recent years it has been kept as a secret method.

We emphasize that it is absolutely necessary that you know the anatomy and physiology of the rectum and its surrounding structures. Know normal conditions; it is the object of this book to show you the pathological conditions and how to treat them, and, in the majority of cases, to treat them in your office.

With careful study, and attention to details which will be given you, you can become a good operator, and effect the relief of many who suffer but cannot afford a long, expensive trip and the charges of a noted rectal specialist. You can do it as well as he with careful study and practice.

The field is great and proctologists are few compared to the specialists in other branches of medicine.

PREPARATION FOR THE WORK

First, know the normal, and then you will be able to know the abnormal and pathological conditions. You must be one who is willing to be sure in his diagnosis—no guess work!

The patient, as we said before, will probably have his own diagnosis made of "Piles," and should you find on examination that he has fissure and not piles he will go away from your office only half convinced of your diagnosis. It is up to you to find out just what his trouble is. Be sure you are right before you commence treatment.

You should enjoy this line of work because you will be able to relieve so much suffering and do it without taking your patient to the hospital or detaining him from his work. There is no class of patients as appreciative of relief as rectal sufferers. When you relieve them they begin, long before you have finished their cases, to hunt up another patient among their friends and acquaintances.

At first thought it might seem to be unpleasant work on account of the part of the body worked upon. We have seen the white coated dentist and have not considered the unpleasant task often before him, yet he must work on the teeth with unpleasant breath in his face from the mouth of someone who has decayed teeth or

whose gums are infected with pyorrhea. The proctologist, with a piece of cotton, antiseptic soap and water, can remove all the unpleasant conditions he may have to deal with.

METHOD OF MAKING EXAMINATIONS

Find out—

1. The location and nature of the pain, if any occurs.
2. Whether it is burning or smarting.
3. Whether it occurs during, or after bowel movement.
4. Whether there is a discharge from the bowel, and, if so, its nature.
5. Whether anything protrudes at or after stool.
6. Whether or not there is bleeding.

After these questions have been answered you have accomplished two things. You know or should know what to look for in your physical examination. You have become acquainted with your patient.

It is necessary for the patient to lie down on the left side with the knees drawn up, the right hand holding up the cheek of the buttocks, the rectum being then exposed to view.

Examine the surface. Notice whether swelling or any protruding or foreign bodies, redness or inflammation are present. Examine the tissues surrounding the rectum for fistula openings.

Next, gently insert the index finger of the right hand, well anointed with vaseline, into the rectal canal, examining for piles, fissures or other pathological conditions.

If you deem it necessary to obtain a view of any part, insert either a proctoscope or speculum which must be well anointed with vaseline. (In making examination with a long periscope it is necessary to place the patient in the knee-chest position). If fistula is present, its course can be noted with a flexible probe.

It is not good advice to give electrical or operative treatment the first day the patient calls unless they are suffering from some acute disease, such as fissure, an abscess, or strangulated hemorrhoids. In these cases it is your duty to act at once, otherwise use one of the ointments, either Saratoga or Mecca.

If the patient tells you his hemorrhoids protrude when he goes to the stool, it is well, in making your examination, to give him an enema of warm water. Send him to the toilet with instructions to strain them out, if he can, and let them remain out for your examination.

It is good practice in most cases to let the patients replace the hemorrhoids themselves, as they are accustomed to do so. If it

causes them any pain, they will not attribute it to your work. They will bear the pain much better if they are causing it themselves.

There are cases where the patient is unable to replace the hemorrhoids. In such cases first anoint the first finger well with vaseline and gently insert it in the rectal canal, before you attempt to replace. Insert the hemorrhoids which appear to be highest up. Experience will teach you in a little time to select the hemorrhoid which should be replaced first. Do not attempt to force them all back at the same time. Never permit a patient to leave your office with hemorrhoids protruding.

OFFICE EQUIPMENT AND INSTRUMENTS NECESSARY

It will be sufficient to mention only the office equipment and instruments that are essential to the proctologist. He will add to these as the occasion requires, and for his own convenience. Every operator will eventually choose his own instruments. The following list is only suggested to help you get started.

The operating table should be one which can be lowered or raised.

A machine generating a perfectly smooth galvanic current is absolutely necessary. It is inadvisable to undertake the treatment of hemorrhoids by galvanism unless you are properly equipped. Special attention should be given to the nature of the current furnished. There should be a continuous unidirectional flow at delicate settings as well as at the heavier settings, and you should assure yourself that the generator will be able to deliver smooth, absolutely uninterrupted flow before you purchase. The careful decision in purchasing, and the resulting appreciation by patients will result to material advantage.

A large electric pad, about eight inches in diameter.

Two connecting cords, each about six feet in length.

Brinkerhoff speculum—These are made in three sizes: Large, medium and small. You will need about three medium, one large and one small. In selecting a Brinkerhoff speculum great care should be exercised. Do not accept one on which the slide does not work easily or the edges are imperfectly milled. A poor speculum will cost you many patients as it cannot be used without causing pain.

LIST OF INSTRUMENTS

Two pair of curved scissors.

One pair of small scissors, straight.

One small knife.

TREATMENT OF RECTAL DISEASES

- One pair of hemostats.
- Two pair of dressing forceps—short and long.
- Buttonhook probe.
- Silver probe (flexible)
- Two hypodermic syringes, glass; one, five cc.; one with extension about two inches in length.
- Bullet crushing forcep.
- Curette, small (one used in ear on sinus work.)
- Hard rubber syringe with long nozzle for irrigation, two ounces in size.
- Two powder blowers with long nozzles, three or four inches in length.
- Some kind of a sterilizer.
- Two-quart irrigating can with rubber tube and rectal tip.
- Box of wood applicators, six inches in length.
- Two spools of silk ligature, one number seven and one number eight.
- One tube of umbilical tape.
- Sterilized gauze.
- Bandages (two and one-half inches).
- Specially constructed electrodes (see description how to make under treatment for hemorrhoids).

LIST OF DRUGS USED

Saratoga Ointment: Put up in two ounce collapsible tubes with pile pipe and key.

Mecca Ointment: Put up same as Saratoga.

Mineral Oxide.

Vitrogen Dressing Powders.

These preparations are proprietary, but are essential in your work. The manufacturer will furnish you with the formulas. The following drugs can be obtained from your local druggist.

Peroxide Hydrogen.

Carbolic Acid.

Stick of Silver Nitrate.

Boracic Acid.

Novocaine—one-half of one percent.

Two percent solution novocaine.
 Grain Alcohol.
 Normal Salt Solution.
 Some good cathartic pill or tablet always kept on hand.
 Sterile Water.
 White Vaseline.

HEMORRHOIDS—CLASSIFIED

Hemorrhoids are the most common of human ills. Believe that if a careful examination was made of the first one hundred persons you meet, you would be able to find that seventy-five of them were afflicted with hemorrhoids in some form, though many of them were not aware that they had any form of rectal disease.

We shall divide hemorrhoids into four classes: Protruding, Internal, Mixed and Strangulated.

Hemorrhoids are small pouches or blood tumors, as a result of the breaking down of the capillary circulation on the internal wall of the anus. Their appearance presents a bright red color unless they are of the mixed variety, and then there is a portion which is covered with mucous membrane. This is easily distinguished as you will see the pale color of the mucous membrane and the bright red color of submucous or hemorrhoid tissue.

You will observe another class, which are very dark in color. This is due to the congestion of the blood in the walls of the hemorrhoids. Hemorrhoids, when not under strain as in defecation and not protruding, are loose sacs or folds of membrane felt on the rectal wall, but when filled with blood from straining or protruding, they become distended bodies of various sizes, shapes, and numbers.

PROTRUDING HEMORRHOIDS

Protruding hemorrhoids are very easily diagnosed. The patient will tell you that on going to stool there is something which protrudes from the rectum. An injection of warm water may be given and the patient straining them out, your diagnosis is easily made.

THE SYMPTOMS OF PROTRUDING HEMORRHOIDS

They may be very painful on defecation or there may be only slight discomfort. This will depend upon whether the external sphincter muscle is tight or relaxed. If contracted it will cause pinching or contraction on the pile tumors, causing burning and smarting pain. There may be bleeding in any form of hemorrhoids.

Protruding hemorrhoids produce an interference with the bowel movement. The patient will complain that it takes a longer time to have an evacuation, and it does not matter how long he remains on the toilet, he has the sensation that he still wants to strain something out. This is due to the protruding hemorrhoids or to internal hemorrhoids obstructing the passage. The bowel movement, if formed, is small or ribbon shaped.

Hemorrhoids may cause many constitutional symptoms, nervousness, backache, legache, and many others. They may cause anemic conditions from loss of blood, as the bleeding is sometimes profuse. In our opinion, there is no classification, as some writers claim, in reference to bleeding hemorrhoids. Any hemorrhoids may bleed today and not tomorrow; whenever the wall breaks down sufficiently to expose a capillary, bleeding must follow.

Be sure to differentiate external hemorrhoids from prolapsus of the rectum, hypertrophied rim, polypus, thromboid and cancer nodules.

It is of greatest importance to notice the line of demarcation, where the hemorrhoid proper begins and the line of mucous membrane of the rectum. The rim is usually thickened in protruding hemorrhoids from over-stimulation or excessive blood supply, which the hemorrhoids have caused. This condition, however, will subside when hemorrhoids have been removed.

Hemorrhoidal tissue (submucous) has no sensation, as it is not supplied with nerves, the pain being caused from the distention of the sac, causing a tension of the mucous walls of the rectum. You can thrust the hypodermic needle into the hemorrhoidal tissue and inject it, and there is no sensation of pain, and when treatment by the improved galvanic method is given properly, at most they will complain only of a slight feeling of warmth; but be sure you are in the hemorrhoidal structure.

INTERNAL HEMORRHOIDS

They are pouches or blood tumors on the internal wall between the internal and external sphincter muscle, but which do not protrude from the rectum. In structure and formation they are the same as protruding hemorrhoids. The most marked symptoms which the patient will complain of is a feeling of fullness in the rectum at the time of stool. There may be a severe pain, burning and smarting. They may bleed, though the bleeding is not so profuse as in external hemorrhoids.

Internal hemorrhoids today may be protruding hemorrhoids tomorrow. Their treatment should not be neglected. Some of the

worst cases of strangulated hemorrhoids result from internal hemorrhoids. They may become enlarged from straining, they protrude, and a tight sphincter contracts down on them. The patient is unable to replace them. The differential diagnosis should be made from polypus, papilla, internal abscess and cancer nodules.

MIXED HEMORRHOIDS

Mixed hemorrhoids are nearly always those of the protruding variety. You will notice the tumor protruding from the rectum, part of it of the pale flesh or mucous color, and part of a bright red. The reason we term it a mixed hemorrhoid is because it is partly covered with mucous membrane. They are usually found in patients who have had hemorrhoids for a number of years. The symptoms and differential diagnosis are the same as in protruding hemorrhoids.

For ages past man has suffered with hemorrhoids. It is an ancient disease and one which has always presented a quandary to the medical profession.

Cooke tells us that: "The early history of this disease constitutes one of the most interesting chapters of medical literature. Introduced to us under the name of 'emerods' by Moses and the prophet Samuel away back in the remoteness of sacred antiquity, its position among human ailments is both conspicuous and unique. The first recorded reference to it is found in the fifth book of the Old Testament, where it appears among the long list of curses for disobedience with which the children of Israel were threatened: 'The Lord will smite thee with the itch, whereof thou canst not be healed.'"^{*} Three centuries later the disease appears for the first time as an actual condition under the strange guise of a plague or curse visited upon the Philistines for having taken the ark of the covenant. In order to rid themselves of their affliction, we are told, the Philistines were instructed by their priests and diviners to return the ark to the children of Israel, sending with it as a trespass offering golden images of their "emorods." The student of the subject will find entertainment, if not instruction, in reading I Samuel, v and vi.

"The subsequent seven or eight centuries are a blank as far as concerns the history of the disease, and not until the advent of Hippocrates do we find it assuming a definite place in nosology. From this time on practically every medical author among the ancients wrote upon the subject, and, following the teachings of their illustrious master, the same fantastic views and grotesque theories, gravely stated, mark the writings of all.

^{*}Deuteronomy, xxviii, 27.

"For many centuries the very nature of the disease was wholly misunderstood. The Father of Medicine himself regarded hemorrhoids as 'a defluxion of pituitous matter to the veins of the anus' whereby was evacuated the black bile or melancholic humor, thus assigning to them an important office in the regulation of the vital functions. Most of the ancient writers subscribe to this view. And even the nineteenth century, with all its boasted enlightenment, did not fail to produce advocates of vagaries almost as absurd. Only a little more than seven decades ago the celebrated French writer, M. Trousseau, taught that the bleeding from hemorrhoids always served a salutary purpose in the economy, and recommended that suppositories or tartar emetic or cupping glasses be employed to reproduce it when 'suppressed.' ***

STRANGULATED HEMORRHOIDS

Strangulated hemorrhoids may have, and usually do have, a sudden onset. The patient may not give any history of protrusion from rectum at the time of stool. On going to stool, at this time, he may be constipated, or he may have been exposed to cold and on straining he will suffer from smarting and burning sensations. He is conscious that he has one or more pile tumors protruding from rectum. He does not attempt to replace them, thinking that they will replace themselves, but the sphincter has contracted, preventing the return blood flow. The blood congeals in the tumor, pain increases until it becomes almost unbearable. The tumor is dark in color and hard and stony feeling to the examining finger.

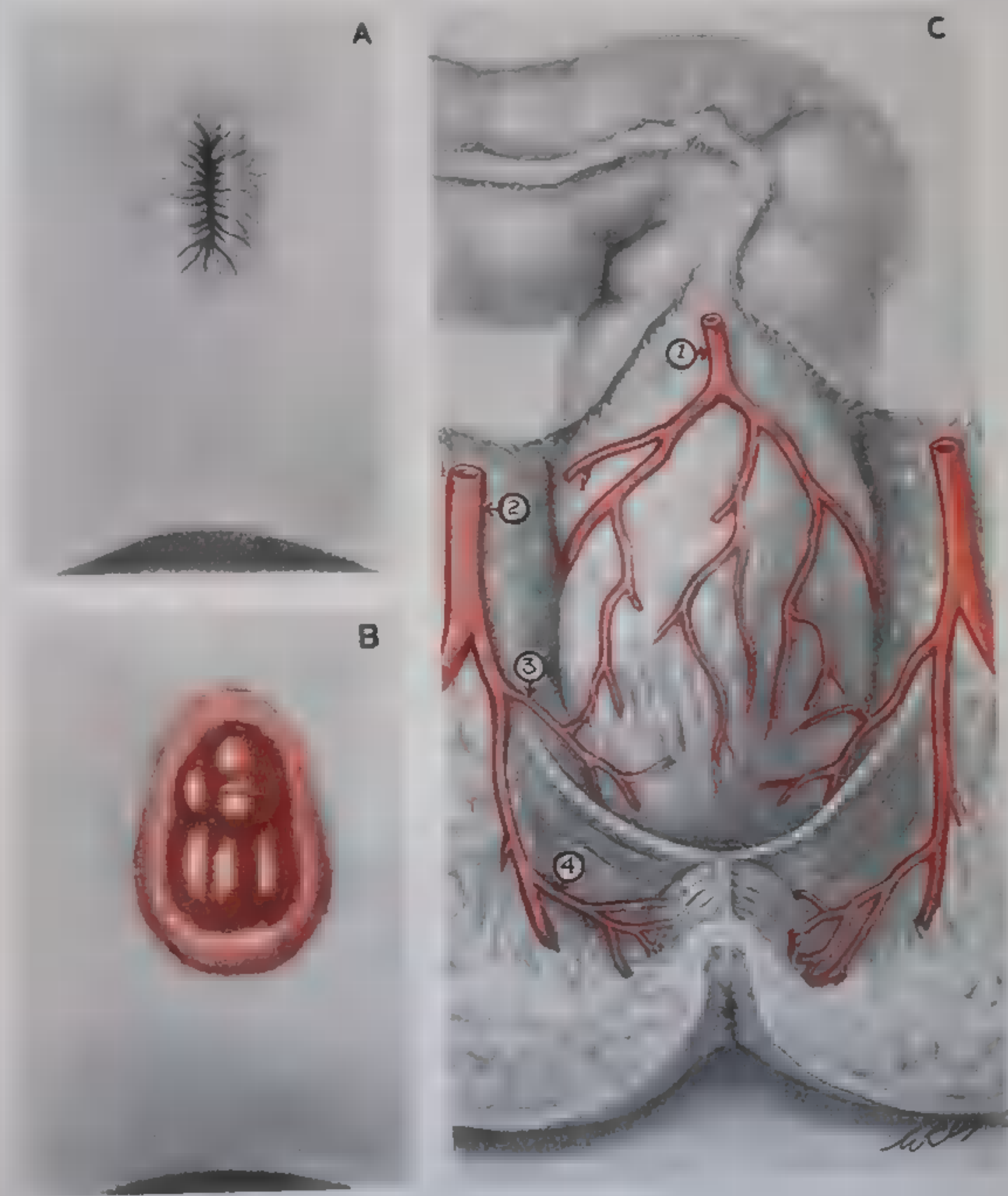
Differential diagnosis must be made between strangulated hemorrhoid and thromboid.

TREATMENT OF HEMORRHOIDS BY AN IMPROVED NONSURGICAL METHOD

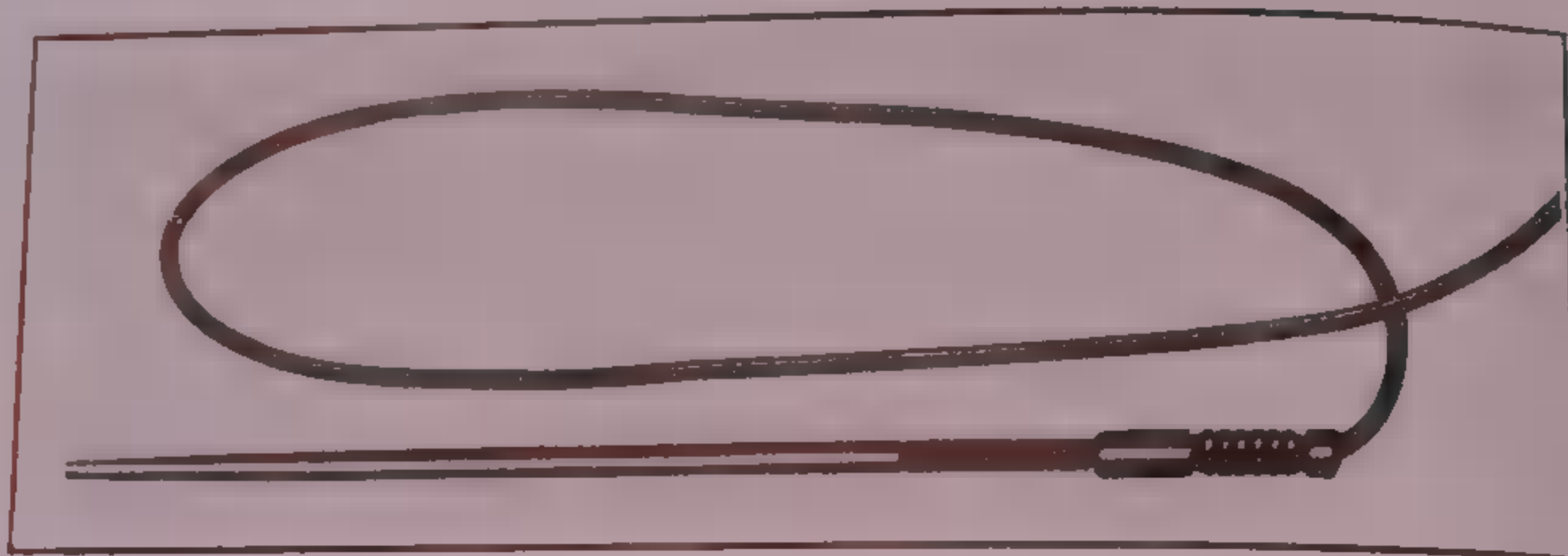
We are glad to be able to present to you a method in its fullest detail, which is devoid of the pain, danger and the dread of the general anesthesia which accompanied the old methods of treatment, and with far less possibility of their returning. A careful comparison of the history of patients who have previously been operated upon by some of the best surgeons in the country, have shown that the hemorrhoids have returned in about two years.

We use in this treatment the Galvanic current. We are aware that the Galvanic current with the electric needle or electrode has been used by a number of physicians with the report that poor results have been obtained. It is not the method which is at fault but the mode of application and the lack of close attention to details.

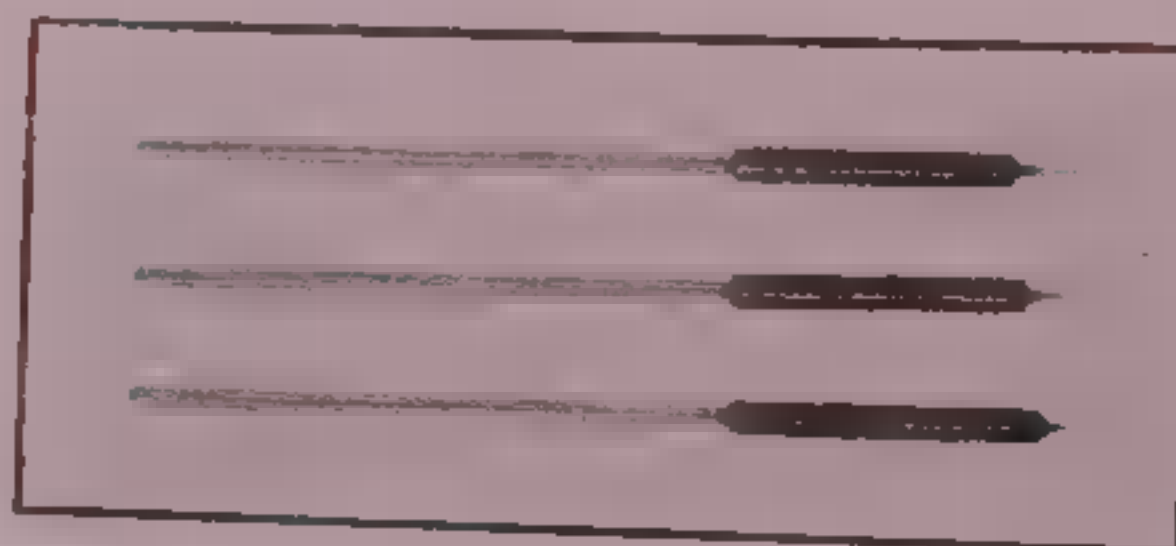
**Wm. Badenhamer: "A Treatise on the Hemorrhoidal Disease" (Wm. Good & Co., 1884), pp. 126 and 127. This monumental work will well repay a careful reading.



A-- Normal Anus
 B External Hemorrhoids with Anal Edema
 C--Blood Supply of the Rectum
 (1) Superior Hemorrhoidal Artery
 (2) Hypogastric Hemorrhoidal Artery
 (3) Middle Hemorrhoidal Artery
 (4) Inferior Hemorrhoidal Artery



No. 742 Ogden Galvanic Needle Holder, with cord (less needles)



No. 2606	Ogden	Bakelite	Insulated	Hemorrhoid	Needle.....	1/8" tip
No. 2607	Ogden	Bakelite	Insulated	Hemorrhoid	Needle.....	3/16" tip
No. 2608	Ogden	Bakelite	Insulated	Hemorrhoid	Needle.....	1/4" tip

TREATMENT OF RECTAL DISEASES

If the following method is followed out in detail, failure is impossible in the majority of cases.

ELECTRODE

The active electrode is the most important of the instruments used in treating hemorrhoids. It must be carefully constructed with two objects in view. The first of these is the sure delivery of the current to the interior of the hemorrhoid; and second, the prevention of the escape of the electrically generated hydrogen gas from the interior of the hemorrhoid. Undoubtedly the lack of an electrode which would perform these two functions was the reason for the failure on the part of early galvanic current experimentors to successfully use that current for the treatment of hemorrhoids.

Motivated partially by these difficulties and partially by the desire for a more practical instrument we recently devised an electrode which is constructed along the necessary lines and need only be sterilized after each treatment to be ready for the next. (See figure).

The entire steel needle is of one piece ground down from a rigid shank and is polished to a hardened smoothness.

The shank is then insulated by being cast into bakelite to a thickness of wall of $1/32$ in. to the needle end, where the insulation first quickly tapers off, forming a surface to block off hydrogen gas; after which the bakelite insulation delicately tapers off to a feather edge at the polished needle surface. This latter bakelite surface prevents electrical contact with the hemorrhoid at point of insertion.

Since the electrode must under no circumstances pass through the hemorrhoid and pierce the opposite wall, these electrodes are made in three lengths for large, medium or small blood tumors.

THE GALVANIC NEEDLE HOLDER

The requisites for a practical holder are convenience in handling, small diameter and a chucking device to hold the needle firmly during operation (see illustration). We recommend handle No. 742* which provides for firm clamping of the needle by means of a slight turn of the upper segment. The light flexible connecting cord is fastened securely in the handle. Handle is constructed of hard rubber, and is small in diameter. This precludes the possibility of interference with visibility when the Brinkerhoff speculum is used.

PROTRUDING HEMORRHOIDS

These should always be treated after patient has strained them out. It may be necessary in severe cases where tumors are large

*Fischer Accessory Catalog.

TREATMENT OF RECTAL DISEASES

and you do not desire to treat all at the first time, to replace the ones you have decided not to treat at this sitting.

Inject hemorrhoid to be treated with one-half of one percent novocaine. Inject tumor until it stands out distinct and full.

A large indifferent electrode of the wet pad type is placed on the abdomen or under but and allow pole to set and held in place with bandage or belt. This pad is connected to the positive pole on the galvanic generator. The needle in the insulated handle is connected to the negative pole on the machine. The needle is thrust into the hemorrhoid until the glass bead rests firmly upon the exterior wall. This is necessary in order that the current shall be delivered inside the hemorrhoid. The negative current coming in contact with the water in the blood and the injected fluid will liberate hydrogen gas. Care must be taken not to press electrode so as to dent in the wall of the hemorrhoid. Be sure to keep the point of electrode away from the wall of the rectum. This can easily be accomplished if you will notice the direction of the direction of the rectal canal.

Now slowly turn on your current by moving the handle of the rheostat from left to right, watching the milliamperere meter until it has registered from seven to fifteen milliamperes, according to the susceptibility of your patient. Some patients are very susceptible to electricity, while others are not. The current should be continued for about ten minutes, when you will notice a slight discoloration in the hemorrhoidal tissue. At first you will see white bubbles through the walls. Then they become darkened in color. After ten minutes' treatment, slowly shut off the current by moving rheostat from right to left to reduce current flow. When current is completely shut off withdraw the electrode and make another puncture about one-fourth inch from where treatment was given before, and repeat the same as before.

The number of punctures necessary to make in each hemorrhoid will depend upon their size. After first puncture is made, it will not be necessary to continue the current for ten minutes, as the body of hemorrhoid is filled with hydrogen gas, and the dark color will appear much sooner than it required for first treatment.

When you have completed your treatment of the hemorrhoid it should be very dark in color or nearly black. Treat each separate hemorrhoid in the manner described. You will have to use your judgment as to the number treated at one time. It is not a good plan to keep the patient on the table for more than forty-five minutes at one time.

Consult your patient while turning on the current as to whether

they have any sensation of pain from the treatment. If the point of the electrode is touching rectal wall, or if you have entered sensitive tissue, the patient will complain of a burning or stinging sensation. Shift the point of the electrode by moving the handle one way or the other, while current is on. The patient will then inform you whether it has given the desired relief. If burning still continues shut off the current and enter at a new place. Never continue treatment of a patient when he complains of burning or stinging sensation. This will indicate to the operator that he is in mucous or sensitive tissue. If treatment should be continued an electric fissure is sure to follow, and they are very difficult to heal.

Consult your patient often while giving treatment, as to whether you are hurting him. He will undoubtedly complain of pain or unpleasant sensations from the piles which are protruding. Determine whether pain is from the protruding piles or from your treatment.

After treatment replace hemorrhoids; treat with Saratoga ointment. Give the patient a tube of Saratoga ointment with instructions to use after each bowel movement and on retiring at night. Be sure to have him replace piles, should they protrude after he leaves your office. The hemorrhoid will disappear in from two to three days after the galvanic application.

There should be no pain by this method during treatment or afterwards, and the patient need not be confined to the home. Two or three days should intervene before you treat the remaining hemorrhoids.

AFTER-TREATMENT OF HEMORRHOIDS

It may be necessary to give a second treatment in some cases where the hemorrhoid does not totally disappear or where basic hemorrhoidal tissue remains.

A careful examination should be made ten days to two weeks after first treatment. If hemorrhoidal tissue remains, an injection of $\frac{1}{2}$ to 1% novocaine may be given followed by a five milliampere treatment with the short electrode.

Should the hemorrhoid be of the bleeding type and the bleeding continue after two days have elapsed following the first treatment, or if the hemorrhoid does not disappear in from 4 to 6 days after treatment, it is an indication that insufficient current has been applied.

RESULTS OF TREATMENT

Although the method described here has been held as a secret method since its conception, it is purely scientific in nature and the function of the elements employed easily understood.

The galvanic current (negative pole), introduced into the interior of the hemorrhoid and contacting with the water content of the blood generates hydrogen gas (Sodium Hydroxid-Na O H) which destroys the organized structure and capillary circulation of the hemorrhoid. This produces, first the liquefaction, and then the hardening of the hemorrhoidal body. These conditions cause the disappearance of the hemorrhoid in one of two ways.

A large hemorrhoid will rupture, discharging its content, which will appear in the stool as small, dark particles having the aspect of coffee grounds. The base will then contract and prevent the patient from experiencing any pain or soreness. A small hemorrhoid will usually disappear by absorption in a manner similar to that of an unruptured blood blister or any external portion of the body.

Pure hemorrhoidal tissue has no nerves. This makes it possible to introduce the electrode into the tumor without the patient experiencing any pain therefrom. Five to ten milliamperes may be given without any anesthetic. The author sometimes treats the smaller hemorrhoids without using the injection of $\frac{1}{2}$ to 1% of novocaine, but the generation of hydrogen gas is much greater if the injection is employed. Due to the increased aqua content of the hemorrhoid by the injection, the hemorrhoid is distended. Thus it is easier to treat and there is less danger of causing an electric fissure brought about by the electrode coming in contact with the walls of the anus.

It must be borne in mind, however, that the injection of novocaine anesthetizes the tissue and that as a result the patient will be incapable of guiding or aiding you in determining whether you are introducing the electrode into mucous membrane, and you will be compelled to rely on your anatomical and pathological knowledge of the structure.

This treatment cannot fail to give the desired results if properly and thoroughly applied.

INTERNAL HEMORRHOIDS

Internal hemorrhoids are treated through the Brinkerhoff speculum. Insert speculum with slide against the hemorrhoid. Be sure to insert speculum completely in the rectum. Slowly withdraw slide until hemorrhoid drops into body of speculum, tell patient to strain down, and this will distend it with blood. With extension of hypodermic inject hemorrhoid with one-half of one percent novocaine solution. The patient is prepared for treatment as in protruding piles.

Insert electrode through speculum into hemorrhoid and slowly turn on current as direct in treating external piles. The same care must be taken to keep point of electrode from mucous wall of rectum. Patient will inform you, if you are in contact with the wall, of a burning sensation.

It may be necessary to give more than one galvanic treatment in each hemorrhoid. This will depend upon the size. Never attempt to rotate speculum while the slide is withdrawn.

If you wish to treat another hemorrhoid in close proximity, withdraw speculum, replace slide and insert again, examining as before. After treatment should be given with Saratoga ointment injected in the rectum.

STRANGULATED HEMORRHOIDS

Cause—Strangulated hemorrhoids are caused by a patient who has hemorrhoids and who has a tight external sphincter muscle. Straining at stool causes them to protrude, the sphincter tightens down and prevents their returning to the anus. The patient neglects to replace them immediately because they are painful and the attempt to replace causes severe suffering. The hemorrhoids continue to fill with blood, the sphincter tightens, due to irritation, until circulation is shut off, the blood congeals in the tumor, the tumor becomes black and hard to the touch, and the patient suffers intense pain.

Treatment—Do not try to replace these hemorrhoids. You would find it almost impossible and if you succeeded you would be causing your patient more pain.

Incise the tumor with a puncture so as to relieve the tension on the tumor, apply Mecca ointment on a large cotton pad. If rectum is not too sensitive, attempt to insert some of the Mecca ointment with pile pipe into the anus.

If you have made a free incision and have expelled the clots, it will be necessary for you to be on your guard against any hemorrhage, although there is not much danger due to the severe contraction of the external sphincter muscle. You should see your patient and give treatment every day. He will probably complain and you will notice a very unpleasant odor from the disintegrating tumors. Clip off all sloughing edges of tumor with dressing forceps and curved scissors. Do not be alarmed when this unpleasant odor occurs for fear of infection.

In some cases of strangulated hemorrhoids, when the patient is suffering intense pain at the time, the tumors may be allowed to rupture themselves, which they will do in a day or so, applying the

same treatment of Mecca ointment, as described above. In severe and painful cases where the patient is suffering intense pain, use Mecca ointment with eight grains anesthesin to the ounce. This gives the patient relief. These patients should be kept off their feet during convalescence.

CONCLUSION AND REVIEW

1. You must be perfectly familiar with the anatomy and physiology of the rectum and surrounding tissues. Do not attempt to treat pathological conditions until you know normal structures and their functions. If you do, you are liable to make serious mistakes that cause you trouble.
2. In turning on the galvanic current, be sure to turn it on slowly to avoid shock to your patient. The same rule is to be observed when turning off the current.
3. Consult your patient often in treating hemorrhoids to find out if there is any burning sensation. If there is, this will indicate that you are in healthy tissue, and you may cause an electric fissure which is difficult to heal.
4. Do not remove electrode from hemorrhoid until you have shut off the current. If you do, patient will get a shock.
5. Be careful not to use positive current on electrode in hemorrhoid. If you do, you will get no results and will destroy electrode. It will absorb in tissue.



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